

City of Courtenay Pumped Sanitary Systems

GENERAL INFORMATION

This bulletin is intended to provide direction on the steps required to ensure pumped sanitary systems are administered consistently and are in compliance with the BC Plumbing Code.

BC PLUMBING CODE

The BC Plumbing Code requires:

- That all piping, fitting and joints used in pressure sewer, force main or sump pump discharge applications shall be able to withstand at least 1 ½ times the maximum potential pressure developed in the system.
- Pumped system testing shall be through pressure testing of the system assembly and not through a 3.0m water column test as typically used for gravity drainage systems.
- Nominally horizontal ABS & PVC above ground piping (<45 degrees/horizontal) to be supported every 1.2m at the end of branches and at changes in direction or elevation.
- All piping and fittings hall conform to the applicable standard, location and application as provided in BCPC table 2.2.5, 2.2.6 and 2.2.7. Examples include:
 - PVC pipe: CAN/CSA-B137.3 and PVC Sch.80 fittings: ASTM 2467; these are permitted to be used above and below ground, other than hot water systems.
 - O ABS Pipe: ASTM F 628 and ABS fittings: CAN/CSA-B181.1, these are permitted to be used for above and below ground applications.
- All sumps shall be vented, water/air tight and the discharge pipe shall include a union, backwater valve and shut off installed in the sequence in the direction of discharge.

SANITARY SUMPS SERVING A SINGLE BATHROOM

Pumped sanitary systems serving a single bathroom group and connected to the building's gravity sanitary sewer building drain are permitted to be sized by a journeyman plumber, with inspections reviewing the installation conducted by the City of Courtenay.

SANITARY SUMPS SERVING MORE THAN ONE BATHROOM GROUP

Pumped sanitary systems serving more than one bathroom group (e.g bath, water closet, lavatory and kitchen sink or other additional fixtures) will require a registered professional to certify the design from the inlet connection of the sump to a point where gravity drainage can once again be achieved. Engineers Schedule B with drawings <u>or</u> sealed memo shall be included at the time of building permit application.

The engineering requirements of this section will also apply to systems servicing entire buildings and shall include on site force main certification.

MACERATING TOILET SYSTEMS

Macerating toilet systems shall only be permitted where a gravity drainage system is not available. They shall be certified to CAN/CSA-B45.9, utilize a minimum ¾" discharge line and be vented through minimum 1 ½" vent. Macerating toilets are based on 4 fixture units and subsequently are required to be connected to a 2" minimum branch or similar nominally horizontal soil or waste pipe. All soil or waste pipes shall have sufficient additional capacity to accept the fixture units of the macerating toilet or an increase to the receiving pipe will be required.

Should you have any questions or comments regarding these requirements, please contact the City of Courtenay Building Division at 250-703-4862 or building@courtenay.ca.